APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,701	09/09/2003	Hamid Ould-Brahim	38898-0146	2312

23577   7590   05/24/2010

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ART UNIT	PAPER NUMBER
2453	

MAIL DATE	DELIVERY MODE
05/24/2010	PAPER

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The time period for reply, if any, is set in the attached communication.

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/658,701
Filing Date: September 09, 2003
Appellant(s): OULD-BRAHIM, HAMID

Colin Climie
Reg. No. 56,036
<u>For Appellant</u>

EXAMINER'S ANSWER

This is in response to the appeal brief filed 3/5/10 appealing from the Office action mailed 10/8/09.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claim 1-17 are rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,662,221   Gonda et al.   12-2003

2002/0032766   Xu   3-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

9.1   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

9.2   Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Gonda et al. (US

6,662,221), herein referred to as Gonda.

As per claims 1,9,17, Gonda discloses a network for providing switched virtual circuit Layer-2

VPNs, said network comprising:

a set of elements interconnected by services (see column 4, lines 15-25, *describing elements in*

the form of computer systems connected by services provided by a corporate center);

at least one first subset of elements defining a private network (see column 4, lines 40-47,

showing at least one of the subset of elements can be connected to a private network);

at least one second subset of elements different from said first subset defining a provider network

wherein at least two subgroups of said first subset of elements may be connected via said provider

network (see Fig. 1, *showing provider network [12] and two subgroups of said first subset [14] and [16]*

are connected via said provider network see column 4, lines 22-25 and lines 21-36);

a provisioning mechanism used to define element membership in said first subset of elements

(see column 9, lines 28-29 and lines 35-40, *describing how customer information is created and a*

provisioning mechanism to support the customer);

a plurality of customer ports maintained on said elements of said first subset of elements (see column 8, lines 31-40, *describing customer port designation for the VPN*);

a plurality of providing ports maintained on said second set of elements, each of said plurality of provider ports connected by data and signaling services to a customer port (see column 14, lines 26-36, *describing the port and port types associated with the customer equipment to configure the customer equipment implying data and signaling services that are used to communicate with the customer equipment*);

a port information table at each element of said provider network having a provider port, said port information table containing mapping information relating addresses of customer ports to addresses of provider ports for said first subset of elements (see column 14, lines 26-36 *showing how the router can connect to the server via the designated ports*); and

a signaling mechanism used to create Layer-2 connectivity between elements within said first subset of elements at the Layer-2 level across said second subset of elements (see column 4, lines 42-46 and column 8, lines 45-46, *describing a layer-2 tunneling protocol in the form of IP Secure*).

As per claims 3 and 11, Gonda further discloses an auto-discovery mechanism for distributing said mapping information to port information tables of said provider network (see column 11, lines 37-45 and lines 56-58).

As per claims 5 and 13, Gonda further discloses that the provisioning mechanism operates in conjunction with said signaling mechanism to restrict element connectivity to elements of said first subset (see column 11, lines 56-62).

As per claims 6 and 14, Gonda further discloses that the signaling services having IP signaling services (see column 4, lines 42-46 and column 8, lines 45-46).

As per claims 7 and 15, Gonda further discloses that the customer port addresses need be unique only within said first subset of elements (see column 8, lines 29-40, *where the virtual private network implies network ports that only elements within the unique VPN share and receive data since other ports will be a part of a different VPN, that is, virtually separated distinct networks with unique addresses and ports used for those networks*).

Claim Rejections - 35 USC § 103

9.3   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.4   Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonda as

applied to claims 1 and 9 above, and further in view of Rosen et al. ("An Architecture for L2VPNs"), herein

referred to as Rosen, taken from the IDS filed January 19, 2006.

As per claims 2 and 10, although the system disclosed by Gonda shows substantial features of

the claimed invention (discussed above), it fails to disclose that the signaling mechanism is an MPLS

signaling mechanism.

Nonetheless, these features are well known in the art and would have been an obvious

modification of the system disclosed by Gonda, as evidenced by Rosen.

In an analogous art, Rosen discloses Layer 2 VPN service over IP backbone by provisioning

virtual circuits that run through IP tunnels (see Abstract). Rosen further discloses that MPLS is an old

and well known tunneling technology used for Layer 2 VPNs among other tunneling technologies such as

L2TP and IPsec (see page 6, "Signaling").

Given the teaching of Rosen, a person having ordinary skill in the art would have readily

recognized the desirability and advantages of modifying Gonda by employing MPLS, such as disclosed

by Rosen, in order to provide a tunneling protocol without substantial overhead.

9.5   Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonda as

applied to claims 3 and 11 above, and further in view of Gibson (US 2002/0186664).

As per claims 4 and 12, Although the system disclosed by Gonda shows substantial features of the claimed invention (discussed above), it fails to disclose that the auto-discovery mechanism for distributing said mapping information uses Border Gateway Protocol.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Gonda, as evidenced by Gibson.

In an analogous art, Gibson discloses a system for topology constrained QoS provisioning between a plurality of sites in a Virtual Private Network (see Abstract). Gibson further discloses using the well known Border Gateway Protocol with MPLS VPNs to deliver packetized data between nodes/sites (see paragraph 22).

Given the teaching of Gibson, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gonda by employing Border Gateway Protocol, such as disclosed by Gibson, in order to support a decentralized routing protocol.

9.6   Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonda as applied to claims 1 and 9 above, and further in view of Xu (US 2002/0032766).

Although the system disclosed by Gonda shows substantial features of the claimed invention (discussed above), it fails to disclose that the customer port addresses and provider port addresses use an addressing scheme chosen from the group of IPv4, IPv6, and NSAP.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Gonda, as evidenced by Xu.

In an analogous art, Xu discloses a system of delivering a network service by delivering data using a service address and packet payload (see Abstract). Xu further discloses IPv4 or IPv6 addressing schemed used for IP addresses and service ports (see paragraph 92).

Given the teaching of Xu, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Gonda by employing IPv4 or IPv6 addressing scheme, such as disclosed by Xu, in order to be compatible with conventional TCP/IP networking protocols.

(10) Response to Argument

A)   Appellant contends that Xu does not disclose use of IPv4 and IPv6 addressing schemes for ports.

In considering A), the Examiner respectfully disagrees. Xu teaches using an addressing scheme chosen from the group of IPv4, IPv6 and NSAP because Xu supports the creation of customized service infrastructure using conventional TCP/IP network protocols such as IP version 4 and IP version 6 (see paragraph 92). Gonda teaches a port information table (see Figs. 10C [1026] and 10D [1036]). Since Xu teaches using conventional TCP/IP network protocols such as IPv4 and IPv6, one of ordinary skill in the art would have found it obvious that the port addresses in the table would conform to one of the IPv4 or IPv6 protocols. It appears that the Appellant is trying to claim that the port <u>identifiers</u> use IP addressing schemes (port 10.0.0.1, port 127.0.1.2, etc.) rather than the conventional port numbering scheme (port 20, port 80, port 21, etc). However, claim 1 contains the limitation that the port information table contains mapping information relating addresses of customer ports to addresses of provider ports. The Examiner interprets this to mean that the port number associated with the client address is mapped to a port number associated with the server address. Claim 8 modifies this limitation by saying that the customer port addresses and provider port addresses use a traditional addressing scheme chosen from the group of IPv4, IPv6 and NSAP. So for instance 10.0.0.1:356 on a client side would be mapped to 127.0.0.1:456 on the server side. The Examiner believes that the limitation DOES NOT MEAN that the port identifiers themselves are modified by using an IPv4, IPv6, or NSAP, but that the customer port addresses (the address that the client port is associated with) and the provider port addresses (the address that the provider port is associated with) use the IPv4, IPv6 or NSAP addressing scheme. The Examiner maintains the same reasoning for rejection of claim 16.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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